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Jan 19, 1999

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TITLE: Method and apparatus for a cryptographically-assisted commercial network system designed to facilitate and support expert-based commerce

DATE-ISSUED: January 19, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Walker; Jay S.	Ridgefield	CT		
Schneier; Bruce	Oak Park	IL		
Jorasch; James A.	Stamford	CT		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE	CODE
Walker Asset Management Limited Partnership	Samford	CT				02

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PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
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PRIMARY-EXAMINER: Cain; David C.

ABSTRACT:

The present invention is an expert matching method and apparatus for managing communications between an expert having particular qualifications and an end user seeking a solution to an expert request. In a preferred embodiment, the apparatus of the present invention includes a controller having a database for storing expert qualifications. In one embodiment, the controller receives an expert request. A search program identifies experts qualified to respond to the expert request. The expert request is then transmitted to the expert, which results in an expert answer transmitted to and received by the central controller. After authentication of the expert answer, using a wide range of security levels from passwords to cryptography, the answer is forwarded to the end user. The method and apparatus of the present invention have applications on the Internet as well as conventional voice telephony systems.

204 Claims, 35 Drawing figures

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US-CL-CURRENT: 705/50; 705/1, 705/26, 705/74, 705/77, 713/170

CLAIMS:

What is claimed:

1. An expert matching apparatus for managing communications between an expert having particular qualifications and an end user seeking a solution to an end user request, comprising:

a controller unit for receiving an end user request generated by an end user, the controller unit having a database for storing therein a plurality of qualifications for a plurality of experts, each expert qualification associated with an address corresponding to a particular expert;

means for searching the database to generate a search result containing expert qualifications which correspond to the end user request;

means for guaranteeing payment to the expert for services rendered to the end user;

means for initiating remittance of payments to the experts;

means for transmitting at least a portion of the end user request to the expert address based on the search result;

means for receiving an expert answer corresponding to the end user request transmitted; and

means for transmitting at least a portion of the expert answer to the end user.

2. The apparatus of claim 1, wherein the expert address is selected from the group consisting of a web page address, a bulletin board address, a pager number, a telephone number, an email address, a voice mail address, a facsimile telephone number, and a postal mail address.

3. The apparatus of claim 1, wherein the expert qualifications are selected from the group consisting of a subject matter designator, experience,

education, licenses, location, availability criteria, response times, rates, payment method, publications, prior work history, and a resume.

4. The apparatus of claim 1, further comprising means for certifying expert qualifications including a second database having expert names and qualifications corresponding to each expert name.

5. The apparatus of claim 1, wherein the means for receiving the expert answer includes an interface selected from the group consisting of an electronic network, the electronic network having at least one of an electronic bulletin board, a web page, a voice mail system, a voice telephone system, and a facsimile system.

6. The apparatus of claim 1, wherein the means for receiving the end user request includes an electronic network, the electronic network having at least one of an electronic bulletin board, a web page, a voice mail system, a voice telephone system, and a facsimile system.

7. The apparatus of claim 1, wherein the means for transmitting at least a portion of the end user request includes an electronic network, the electronic network having at least one of an electronic bulletin board, a web page, a voice mail system, a voice telephone system, and a facsimile system.

8. The apparatus of claim 1, further comprising means for authenticating at least one of the origin and integrity of transmissions received by the controller unit.

9. The apparatus of claim 8, wherein the authentication means includes a cryptographic operation with an encryption key.

10. The apparatus of claim 8, wherein the authentication means includes an identifier selected from the group consisting of a password, a name, or an identification number.

11. The apparatus of claim 8, wherein the authentication means includes a digital signature.

12. The apparatus of claim 9, wherein the encryption key belongs to an asymmetric cryptographic protocol.

13. The apparatus of claim 9, wherein the encryption key belongs to a symmetric cryptographic protocol.

14. The apparatus of claim 8, wherein the authentication means includes a hash protocol.

15. The apparatus of claim 8, wherein the authentication means includes biometric qualification.

16. The apparatus of claim 15, wherein the biometric qualification includes fingerprint analysis.

17. The apparatus of claim 15, wherein the biometric qualification includes voice analysis.

18. The apparatus of claim 1, wherein the database includes a memory device for storing expert qualifications in at least one of a text, video, and audio format.

19. The apparatus of claim 1, wherein the search means queries the database for expert qualifications which correspond to the end user request.

20. The apparatus of claim 1, wherein the end user request includes searchable criteria.

21. The apparatus of claim 20, wherein the search means queries the database for expert qualifications which correspond to the criteria.
22. The apparatus of claim 1, wherein the search means includes a fuzzy logic protocol for searching the database.
23. The apparatus of claim 1, wherein the search means includes an artificial intelligence system for searching the database.
24. The apparatus of claim 1, wherein the search means includes an expert system for searching the database.
25. The apparatus of claim 1, wherein the search means includes a keyword search procedure for searching the database.
26. The apparatus of claim 1, further comprising means to classify the end user request.
27. The apparatus of claim 26, wherein the classifying means includes a second database having predetermined subject matter classifications for classifying the end user requests by subjects contained in the second database.
28. The apparatus of claim 26, wherein the classification means includes a fuzzy logic protocol.
29. The apparatus of claim 26, wherein the classification means includes an expert system.
30. The apparatus of claim 26, wherein the classification means includes an artificial intelligence system.
31. The apparatus of claim 26, wherein the classification means includes a comparator for semantic comparison between the end user request and the expert qualifications.
32. The apparatus of claim 26, wherein the classifying means includes a second database having predetermined subject matter classifications for classifying the end user requests by subjects contained in the second database, wherein the end user selects a subject matter classification from the second database.
33. The apparatus of claim 26, wherein the classification means includes an interface selected from the group consisting of a voice response system, a web page, and a direct text input field.
34. The apparatus of claim 1, further comprising means for anonymous transmission of end user requests.
35. The apparatus of claim 1, further comprising means for anonymous transmission of expert answers.
36. The apparatus of claims 34 or 35, wherein the anonymous transmission means includes a cryptographic protocol.
37. The apparatus of claims 34 or 35, wherein the anonymous transmission means includes an anonymous mix protocol.
38. The apparatus of claims 34 or 35, wherein the anonymous transmission means includes a voice modification processor.
39. The apparatus of claim 1, further comprising means for the end user to select an expert from the search results.
40. The apparatus of claim 39, wherein the controller unit provides the search results to the end user.

41. The apparatus of claim 39, wherein the end user selects an expert from a subset of experts who respond to the end user request transmitted by the controller unit.
42. The apparatus of claim 39, wherein the controller selects an expert from a subset of experts who respond to the end user request transmitted by the controller unit to the expert based on selection criteria established by the end user.
43. The apparatus of claim 42, wherein the selection criteria are at least one of (i) first to respond; (ii) random; (iii) price; and (iv) response time.
44. The apparatus of claim 1, further comprising means for an end user to select at least one expert.
45. The apparatus of claim 1, wherein the expert answer transmission means includes an electronic network for transmitting end user requests, the electronic network having at least one of a voice telephone system, a world wide web network, a bulletin board system, an online system, and an Internet system.
46. The apparatus of claim 1, wherein the expert answer receiving means includes an electronic network for receiving end user requests, the electronic network having at least one of a voice telephone system, a world wide web network, an electronic bulletin board system, an email address, an online system, and an Internet system.
47. The apparatus of claim 1, further comprising means for transmitting expert qualifications to an end user.
48. The apparatus of claim 1, further comprising means for transmitting reference data to an end user.
49. The apparatus of claim 1, further comprising means for storing and retrieving reference data.
50. The apparatus of claim 1, wherein the payment collection means includes at least one of (i) a credit card system; (ii) digital cash; (iii) electronic funds transfer; and (iv) invoice billing.
51. The apparatus of claim 1, wherein the payment remittance means includes at least one of (i) a credit card system; (ii) digital cash; (iii) electronic funds transfer; and (iv) invoice billing.
52. The apparatus of claim 1, wherein the means for payment includes an algorithm for calculating the payment rate as a function of the expert qualifications.
53. The apparatus of claim 1, wherein the means for payment includes an algorithm for calculating the payment rate as a function of the number of times the expert answer is transmitted to an end user.
54. The apparatus of claim 1, further comprising means for transmitting a bid from an end user to an expert.
55. The apparatus of claim 54, further comprising means for anonymous transmission of a bid from an expert to an end user.
56. The apparatus of claim 1, further comprising means for direct communication between an expert and an end user through the controller unit.
57. The apparatus of claim 56, wherein the direct communications means includes the controller unit for managing the direct communications between the expert and the end user.

58. The apparatus of claim 56, further including an online service provider system for hosting direct communications between the end user and the expert.
59. The apparatus of claim 57, further including an interface selected from the group consisting of a bulletin board system and a chat conference room.
60. The apparatus of claim 1, further comprising means for real time transmission of an end user request to an expert address, and real time transmission of an expert answer to the end user.
61. The apparatus of claim 57, wherein the direct communications are moderated by an expert.
62. The apparatus of claim 57, further comprising means for storing and retrieving the direct communications between the end user and the expert.
63. The apparatus of claim 1, further comprising a language translator processor for translating at least a portion of one communication selected from the group consisting of end user requests and expert answers.
64. The apparatus of claim 1, further comprising means for storing and retrieving prior end user requests.
65. The apparatus of claim 1, wherein the end user request includes a test answer.
66. The apparatus of claim 65, wherein the expert answer is an evaluation of the test answer.
67. An expert matching apparatus for managing communications between an expert having particular qualifications and an end user seeking answers to a problem, comprising:
- a controller unit for receiving an end user request generated by an end user, the controller unit having a database for storing therein a plurality of expert qualifications, each expert qualification associated with an address corresponding to a particular expert;
 - means for selecting at least one end user request for evaluation by at least one expert;
 - means for transmitting at least a portion of the end user request to the expert address based on the end user request selection;
 - means for establishing a price for an expert answer corresponding to the selected end user request;
 - means for guaranteeing payment to the expert for services rendered to the end user in response to the end user request;
 - means for receiving the expert answer responsive to the end user request transmitted; and
 - means for transmitting the expert answer to the end user.
68. The apparatus of claims 1 or 67, further comprising means for receiving a bid from an end user.
69. The apparatus of claims 1 or 67, further comprising means for transmitting a bid to an end user.
70. The apparatus of claims 1 or 67, further comprising means for receiving a bid from an expert.
71. The apparatus of claims 1 or 67, further comprising means for transmitting

a bid to an expert.

72. The apparatus of claim 70, wherein the receiving means includes an electronic network, the electronic network having at least one of a bulletin board system, an email address, a web page, and a voice telephone system.

73. The apparatus of claim 67, wherein the price establishing means includes a margin comparator for determining when a price bid transmitted by an expert is equal to or less than a payment rate submitted by the end user.

74. The apparatus of claim 73, wherein the margin comparator selects the price bid based on margin size.

75. The apparatus of claim 67, further comprising:

means for receiving a bid from an expert;

means for transmitting the expert bid to the end user; and

means for receiving an acceptance of the expert bid from an end user.

76. The apparatus of claim 67, wherein the expert address includes at least one of a web page address, a bulletin board address, a pager number, a telephone number, an email address, a voice mail address, a facsimile telephone number, and a postal mail address.

77. The apparatus of claim 67, wherein the expert qualifications includes at least one of a subject matter designator, experience, education, licenses, location, availability criteria, rates, payment method, publications, prior work history, and a resume.

78. The apparatus of claim 67, wherein the expert qualifications are stored and transmittable in a multi-media format.

79. The apparatus of claim 67, wherein the means for receiving the expert answer includes an electronic network, the electronic network having at least one of an electronic bulletin board, an email address, a web page, a voice mail system, a voice telephone system, and a facsimile system.

80. The apparatus of claim 67, further including means for transmitting letters of interest to at least one expert.

81. The apparatus of claim 67, wherein the means for transmitting at least a portion of the end user request includes an electronic network, the electronic network having at least one of an electronic bulletin board, a web page, a voice mail system, a voice telephone system, and a facsimile system.

82. The apparatus of claim 67, further comprising means for authenticating at least one of the origin and integrity of transmissions received by the controller unit.

83. The apparatus of claim 82, wherein the authentication means includes a cryptographic operation with an encryption key.

84. The apparatus of claim 83, wherein the encryption key belongs to an asymmetric cryptographic protocol.

85. The apparatus of claim 83, wherein the encryption key belongs to a symmetric cryptographic protocol.

86. The apparatus of claim 82, wherein the authentication means includes a hash protocol.

87. The apparatus of claim 82, wherein the authentication means includes biometric qualification.

88. The apparatus of claim 87, wherein the biometric qualification includes fingerprint analysis.
89. The apparatus of claim 87, wherein the biometric qualification includes voice analysis.
90. The apparatus of claim 67, wherein the database includes a memory device for storing expert qualifications in at least one of a text, video, and audio format.
91. The apparatus of claim 67, wherein the selection means queries the database for expert qualifications which correspond to the end user request.
92. The apparatus of claim 67, wherein the end user request includes searchable criteria.
93. The apparatus of claim 92, wherein the search means queries a database having end user request and searchable criteria for searchable criteria which correspond to the expert qualifications.
94. The apparatus of claim 93, wherein the search means includes a fuzzy logic protocol for searching the database.
95. The apparatus of claim 93, wherein the search means includes an artificial intelligence system for searching the database.
96. The apparatus of claim 93, wherein the search means includes an expert system for searching the database.
97. The apparatus of claim 93, wherein the search means includes a keyword search procedure for searching the database.
98. The apparatus of claim 67, further comprising means to classify the end user request including a second database having predetermined subject matter classifications for classifying the end user requests by subjects contained in the second database.
99. The apparatus of claim 98, wherein the classifying means includes the controller unit.
100. The apparatus of claim 98, further comprising means for the end user to classify the end user request wherein the end user selects a subject matter classification from the second database.
101. The apparatus of claim 98, wherein the classification means includes at least one of a voice response system, a web page, and a direct input field.
102. The apparatus of claim 98, wherein the classification means includes a fuzzy logic protocol.
103. The apparatus of claim 98, wherein the classification means includes an expert system.
104. The apparatus of claim 98, wherein the classification means includes a comparator for semantic comparison between the end user request and the expert qualifications.
105. The apparatus of claim 67, further comprising means for anonymous transmission of end user requests.
106. The apparatus of claim 67, further comprising means for anonymous transmission of expert answers.
107. The apparatus of claims 105 or 106, wherein the anonymous transmission

means includes a cryptographic protocol.

108. The apparatus of claim 67, wherein the expert answer transmission means includes an electronic network for transmitting end user requests, the electronic network having an interface selected from the group consisting of a voice telephone system, a world wide web network, an electronic bulletin board system, an online system, and an Internet system.

109. The apparatus of claim 67, wherein the expert answer receiving means includes an electronic network for receiving end user requests, the electronic network having at least one of a voice telephone system, a world wide web network, an electronic bulletin board system, an email address, an online system, and an Internet system.

110. The apparatus of claim 67, wherein the payment collection means includes a payment device selected from the group consisting of (i) a credit card system; (ii) digital cash; (iii) electronic funds transfer; and (iv) invoice billing.

111. The apparatus of claim 67, wherein the payment remittance means includes a payment device selected from the group consisting of (i) a credit card system; (ii) digital cash; (iii) electronic funds transfer; and (iv) invoice billing.

112. The apparatus of claim 67, wherein the means for payment includes an algorithm for calculating the payment rate as a function of an expert qualification.

113. A computer implemented expert matching apparatus for managing communications between an expert having particular qualifications and an end user seeking a solution to an end user request, comprising:

a controller unit for receiving an end user request generated by an end user, the controller unit having a database for storing therein a plurality of expert qualifications, each expert qualification associated with an address corresponding to a particular expert;

means for classifying the end user request;

means for searching the database to generate a search result containing expert addresses which correspond to the end user request classification;

means for searching external databases for search results containing expert addresses which correspond to the end user request classification;

means for authenticating data communications between the controller unit and the expert;

means for transmitting at least a portion of the end user request to the expert based on the search result;

means for receiving at least one expert answer responsive to the transmitted end user request; and

means for transmitting at least a portion of the expert answer to the end user.

114. The apparatus of claim 113, further comprising means for exchanging payment between the end user and the expert.

115. An electronic system for matching an inquiry formulated by a remotely located user with at least one remotely located consultant having particular qualifications relevant to said inquiry, said system comprising:

a controller unit associated with a central authority, said controller unit capable of communicating with a plurality of remotely located users on the one hand and a plurality of remotely located consultants on the other hand, said controller unit being capable of receiving an inquiry from one of said users

and transmitting said inquiry to at least one of said consultants;

a database associated with said controller unit, said database storing qualifications corresponding to each of said consultants;

means associated with said controller unit for searching said database to select at least one of said consultants having qualifications suitable for responding to said inquiry;

means for searching external databases for experts having qualifications suitable for responding to said inquiry;

means associated with said controller unit for transmitting said inquiry to each of said selected consultants;

means associated with said controller unit for establishing with at least one of said selected consultants a fee for responding to said inquiry; and

means associated with said controller unit for transmitting said response to said user.

116. The system of claim 115, further comprising means associated with said controller unit for receiving a response from at least one of the selected consultants with whom a fee has been established.

117. The system of claim 115, further comprising means associated with said controller unit for establishing with said user a price for providing a response to said inquiry.

118. The system of claim 117 wherein said price is proposed by said user and said controller unit either accepts said price or proposes a different price.

119. The system of claim 117 wherein said price is proposed by said controller unit and said user either accepts said price or proposes a different price.

120. The system of claim 115 wherein said central controller unit transmits a proposed consultant fee to said consultant along with said inquiry and said consultant either accepts said proposed fee or proposes a different fee.

121. A method of electronically managing communications between an expert having particular qualifications and an end user seeking a solution to an end user request, comprising the steps of:

providing a controller unit having a database for storing therein a plurality of expert qualifications, each expert qualification associated with an address corresponding to a particular expert;

receiving at the controller an end user request from an end user;

searching the database to generate a search result identifying experts who have qualifications which correspond to the end user request;

transmitting at least a portion of the end user request to at least one expert address based on the search result; and

transmitting an expert answer, based on the end user request, to at least one of the controller unit and the end user.

122. The method of claim 121, further comprising the steps of collecting payments from the end users.

123. The method of claim 121, further comprising the step of remitting payments to the experts based on the expert answer.

124. The method of claim 121, further comprising the step of certifying the

expert qualifications by querying a second database having expert names and corresponding qualifications.

125. The method of claim 121, further comprising the step of authenticating at least one of the origin and integrity of transmissions received by the controller unit.

126. The method of claim 125, wherein the authentication step includes a cryptographic operation with an encryption key.

127. The method of claim 125, further comprising the step of authenticating with a hash protocol.

128. The method of claim 125, further comprising the step of authenticating with a biometric qualification.

129. The method of claim 121, further comprising the step of storing expert qualifications in at least one of a text, video, and audio format in the database.

130. The method of claim 121, wherein the end user request has searchable criteria, comprising the further step of transmitting the end user request to an expert having qualifications which correspond to the searchable criteria.

131. The method of claim 121, further comprising the steps of:

classifying the end user request by locating terms contained in both the end user request and a second database having predetermined subject matter classifications; and

transmitting the end user requests to experts having qualifications which match the subject matter classifications of the end user requests.

132. The method of claim 130, wherein the end user generates the searchable criteria.

133. The method of claim 131, wherein the classification step further includes the step of selecting a subject matter classification from an electronic display of predetermined subject classifications.

134. The method of claim 121, further comprising the step of anonymously transmitting end user requests.

135. The method of claim 121, further comprising the step of anonymously transmitting expert answers.

136. The method of claims 134 or 135, wherein the anonymous transmission step includes a cryptographic protocol.

137. The method of claim 121, further comprising the steps of:

providing the search results to the end user; and

selecting an expert based on the search results.

138. The method of claim 121, further comprising the steps of:

transmitting the end user request to the experts;

identifying a subset of experts who respond to the end user requests; and

selecting an expert from the subset.

139. The method of claim 121, further comprising the step of using the controller unit to select an expert from the subset of experts who respond to

the end user request transmitted by the controller unit based on selection criteria established by the end user.

140. The method of claim 121, further comprising the step of transmitting expert qualifications to an end user.

141. The method of claim 121, further comprising the step of transmitting reference data from a first end user to a second end user.

142. The method of claims 122 or 123, further comprising the step of calculating the payment rate as a function of the expert qualifications.

143. The method of claims 122 or 123, further comprising the step of calculating the payment rate based on the number of times which an expert answer is transmitted to end users 1-N.

144. The method of claim 121, further comprising the step of transmitting a price bid from an expert to an end user.

145. The method of claim 144, further comprising the step of anonymously transmitting the price bid from an expert to an end user.

146. The method of claim 121, further comprising the step of moderating direct communications between an expert and an end user.

147. The method of claim 121, further comprising the step of real time transmission of an end user request to an expert address, and real time transmission of an expert answer to the end user.

148. The method of claim 121, further comprising the step of transmitting the expert answer to a second expert for review.

149. The method of claim 121, further comprising the step of randomly selecting expert answers for review by a second expert.

150. An expert matching method for managing communications between an expert having particular qualifications and an end user seeking answers to a problem, comprising the steps of:

providing a controller unit having a database for storing therein a plurality of expert qualifications, each expert qualification associated with an address corresponding to a particular expert;

receiving at the controller an end user request from an end user;

using the controller unit to select at least one end user request for evaluation by the expert;

establishing a price for the expert answer corresponding to the selected end user request;

providing an electronic means for guaranteeing payment to the expert for provision of the expert answer;

transmitting at least a portion of the end user request to the expert address based on the end user request selection;

receiving the expert answer corresponding to the transmitted end user request; and

transmitting the expert answer to the end user.

151. The method of claim 150, further comprising the step of transmitting expert qualifications to the end user.

152. The method of claim 150, further comprising the step of receiving price bids from experts.

153. The method of claim 150, further comprising the steps of:

establishing a price by determining when a price bid transmitted by an expert is equal to or less than a payment rate submitted by the end user; and

selecting a price bid based on the margin of size between the payment rated submitted by the end user and the price bid.

154. The method of claim 150, further comprising the step of electronically managing auctions for the purpose of matching end user requests with experts.

155. The method of claim 154, further comprising the step of receiving at least one bid at the controller unit.

156. The method of claim 150, further comprising the step of transmitting a bid from the controller unit to the expert.

157. The method of claim 150, further comprising the step of transmitting a bid from the expert to the end user.

158. The method of claim 150, further comprising the steps of:

transmitting a bid to at least one of the expert and end user; and

receiving an acceptance from at least one of the expert and the end user.

159. The method of claim 150, further comprising the step of authenticating at least one of the origin and integrity of transmissions received by the controller unit.

160. The method of claim 159, wherein the authentication step includes a cryptographic operation with an encryption key.

161. The method of claim 159, further comprising the step of cryptographic authentication including an encryption key belonging to a symmetric cryptographic protocol.

162. The method of claim 150, further comprising the step of biometric qualification.

163. The method of claim 150, further comprising the step of searching the database for expert qualifications which correspond to the end user request.

164. The method of claim 150, further comprising the steps of:

manual classification of the end user request by the end user; and

transmitting the end user requests to experts having qualifications which match the subject matter classifications of the end user requests.

165. The method of claim 164, wherein the manual classification step further includes the step of selecting a subject matter classification from an electronic display of predetermined subject classifications.

166. The method of claim 150, further comprising the step of anonymously transmitting an end user request.

167. The method of claim 150, further comprising the step of anonymously transmitting an expert answer.

168. The method of claims 166 or 167, further comprising the step of cryptographic transmission.

169. The method of claim 150, further comprising the step of exchanging payment between the end user and the expert.

170. The method of claim 150, further comprising the step of exchanging payment between the expert and the controller.

171. The method of claim 150, further comprising the step of exchanging payment between the end user and the controller.

172. An electronic system for matching an inquiry formulated by a remotely located user with at least one remotely located consultant having particular qualifications relevant to said inquiry, said system comprising the steps of:

communicating with a plurality of remotely located users on the one hand and a plurality of remotely located consultants on the other hand, said system being capable of receiving an inquiry from one of said users and transmitting said inquiry to at least one of said consultants;

storing said qualifications corresponding to each of said consultants in a database;

searching said database to select at least one of said consultants having qualifications suitable for responding to said inquiry;

transmitting said inquiry to each of said selected consultants; and

transmitting said response to said user.

173. The method of claim 172, further comprising the steps of:

electronically negotiating a price for the answer/response through the controller;

exchanging payment between the end user and the central authority; and

exchanging a guaranteed payment from the central authority to the expert.

174. The method of claim 172, further comprising the step of transmitting a proposed consultant fee to said consultant along with said inquiry and said consultant either accepts said proposed fee or proposes a different fee.

175. A method of providing information, operable for providing product support information comprising the steps of:

transmitting and receiving calls to and from a controller, said controller communicating with a plurality of remotely located users on the one hand, and a plurality of remotely located online consultants on the other hand, said controller being capable of receiving an inquiry from one of said users and transmitting said inquiry to at least one of said online consultants;

storing and retrieving qualifications corresponding to each of said consultants in a database associated with said controller;

searching said database to select at least one of said consultants having qualifications suitable for responding to said inquiry;

balancing the number of online consultants relative to the number of remotely located users; and

routing calls from remotely located users to online consultants based on the inquiry.

176. The method of claim 175, further comprising the steps of:

measuring the duration and frequency of incoming calls from remotely located users; and

adding or removing connections with consultants based on the time and frequency of calls.

177. An expert matching apparatus for managing communications between an expert having particular qualifications and an end user seeking a solution to an end user request, comprising:

a controller unit configured for processing an end user request generated by an end user, the controller unit having a database for storing therein a plurality of qualifications for a plurality of experts, each expert qualification associated with an address corresponding to a particular expert, said controller unit configured to search the database to generate a search result containing at least one expert qualification which corresponds to the end user request, said controller unit further configured to select an expert based on said search result; and

a transceiver disposed in communication with said controller unit, said transceiver configured for transmitting at least a portion of the end user request to the address of the selected expert, for receiving an expert answer corresponding to the transmitted end user request, and for transmitting at least a portion of the expert answer to the end user.

178. The apparatus of claim 177, wherein said transceiver is further configured for receiving guaranteed payment information from a guaranteed payment system for payment of expert services rendered to the end user and for transmitting payment remittance information to a payment remittance system to remit payment to the selected expert.

179. The apparatus of claim 178, wherein the controller unit is further configured to certify expert qualifications, said controller unit further including a second database having expert identifiers and qualifications corresponding to each expert identifier.

180. The apparatus of claim 178, wherein the transceiver is disposed in communication with an electronic network, the electronic network selected from the group consisting of an electronic bulletin board, a web page, a voice mail system, a voice telephone system, and a facsimile system.

181. The apparatus of claim 178, wherein the controller unit is configured to authenticate either or both origin and integrity of a transmission received by the controller unit.

182. The apparatus of claim 181, wherein the controller unit is configured to authenticate either or both origin and integrity of a transmission received by the controller unit using a cryptographic operation with an encryption key.

183. The apparatus of claim 181, wherein the controller unit is configured to authenticate either or both origin and integrity of a transmission received by the controller unit using an identifier selected from the group consisting of a password, a name, an identification number, and a digital signature.

184. The apparatus of claim 178, wherein the controller unit is configured to classify the end user request, the controller unit further including a second database having predetermined subject matter classifications for classifying the end user requests by subjects contained in the second database.

185. The apparatus of claim 178, wherein the transceiver is configured to anonymously transmit the portion of the end user request to the selected expert.

186. The apparatus of claim 178, wherein the transceiver is configured to anonymously transmit the expert answer.

187. The apparatus of claim 185, wherein the transceiver is configured for anonymous transmissions using a cryptographic protocol.
188. The apparatus of claim 185, wherein the transceiver further comprises a voice modification processor.
189. The apparatus of claim 186, wherein the transceiver is configured for anonymous transmissions using a cryptographic protocol.
190. The apparatus of claim 186, wherein the transceiver further comprises a voice modification processor.
191. The apparatus of claim 178, wherein the transceiver is configured to transmit reference data to an end user, and the controller unit is configured to store and retrieve reference data.
192. The apparatus of claim 178, wherein the transceiver is configured to receive a bid from the end user and transmit the bid to the selected expert.
193. The apparatus of claim 178, wherein the controller unit is configured to allow direct communication between the selected expert and the end user.
194. The apparatus of claim 178, wherein the controller unit is configured to store and retrieve a prior end user request.
195. The apparatus of claim 178, wherein the end user request includes a test answer.
196. The apparatus of claim 195, wherein the expert answer includes an evaluation of the test answer.
197. The apparatus of claim 177, wherein the controller is configured to establish said price using a margin comparator configured for determining when a price bid transmitted by the selected expert is equal to or less than a payment rate submitted by the end user.
198. The apparatus of claim 197, wherein the margin comparator is configured to select the price bid based on margin size.
199. The apparatus of claim 178, wherein the expert qualifications are selected from the group consisting of a subject matter designator, experience, education, licenses, location, availability criteria, representatives, rates, payment method, publications, prior work history, and a resume.
200. An expert matching device for managing communications between an expert having particular qualifications and an end user seeking a solution to an end user request, comprising:
- a memory device having a database containing a plurality of qualifications for a plurality of experts, each expert qualification associated with an expert address corresponding to a particular expert; and
- a processor disposed in communication with said memory device, said processor configured to receive an end user request generated by an end user, to search the database to generate a search result containing at least one expert qualification which corresponds to the end user request, to select an expert based on said search result, to transmit at least a portion of the end user request to the address of the selected expert, to receive an expert answer corresponding to the transmitted end user request, and to transmit at least a portion of the expert answer to the end user.
201. The expert matching device of claim 200, wherein said processor is further configured to receive guaranteed payment information from a guaranteed payment system for payment of expert services rendered to the end user and to transmit

payment remittance information to a payment remittance system to remit payment to the selected expert.

202. An expert matching device for managing communications between an expert having particular qualifications and an end user seeking answers to a problem, comprising:

a memory device having a database containing a plurality of qualifications for a plurality of experts, each expert qualification associated with an expert address corresponding to a particular expert; and

a processor disposed in communication with said memory device, said processor configured to receive an end user request generated by an end user, to establish a price for an expert answer corresponding to an end user request, to receive an end user request for evaluation by at least one expert, to transmit at least a portion of the end user request to an address of a selected expert, to receive the expert answer responsive to the transmitted end user request and to transmit the expert answer to the end user.

203. The expert matching device of claim 202, wherein said processor is further configured to receive guaranteed payment information from a guaranteed payment system for payment to the expert for services rendered to the end user in response to the end user request.

204. An expert matching apparatus for managing communications between an expert having particular qualifications and an end user seeking answers to a problem, comprising:

a controller unit for processing an end user request generated by an end user, the controller unit having a database for storing therein a plurality of expert qualifications, each expert qualification associated with an expert address corresponding to a particular expert, said controller unit configured to establish a price for an expert answer corresponding to an end user request; and

a transceiver disposed in communication with said controller unit, said transceiver configured for receiving an end user request for evaluation by at least one expert, for transmitting at least a portion of the end user request to an address of a selected expert, for receiving the expert answer responsive to the transmitted end user request and for transmitting the expert answer to the end user.

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S2	717	RD (unique items)
S3	219	((FIRST OR SECOND) (S) ("HEAD-HUNTER" OR (HEAD (W) HUNTER?) OR EXPERT OR SKILL?) (S) (BID? OR AUCTION?) (S) REQUEST?) AND PD<=960227
S4	210	RD (unique items)
S5	20	((FIRST AND SECOND) (S) ("HEAD-HUNTER" OR (HEAD (W) HUNTER?) OR EXPERT OR SKILL?) (S) (BID? OR AUCTION?) (S) REQUEST?) - AND COMPUTER? AND PD<=960227
S6	20	RD (unique items)
S7	0	((("HEAD-HUNTER" OR (HEAD (W) HUNTER?)) (S) (EXPERT? OR SKILL?) (5N) BID?) (S) REQUEST?) AND COMPUTER? AND PD<=960227
S8	11	((("HEAD-HUNTER" OR (HEAD (W) HUNTER?)) OR (EXPERT? OR SKILL?) (5N) BID?) (S) REQUEST?) AND COMPUTER? AND PD<=960227
S9	9	RD (unique items)
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